DOCUMENT RESUME

ED 042 179 CG 005 445

TITLE	Proposal for a Mobile Assisted Career Exploration Unit.
INSTITUTION	Utah State Univ., Logan.
SPONS AGENCY	Utah Research Coordinating Unit for Vocational and Technical Education, Salt Lake City.; Utah State Board of Education, Salt Lake City.
PUB DATE	[68]
NOTE	41p.
EDRS PRICE	EDRS Price MF-$0.25 HC-$2.15
DESCRIPTORS	Career Opportunities, *Career Planning, Careers, *Counseling, *Development, Elementary School Students, Evaluation, Measurement, *Pupil Personnel Services, Vocational Counseling, *Vocational Development

ABSTRACT

A pilot program is proposed to determine if a mobile guidance unit operating on a limited time schedule can provide a feasible means for increasing maturity of rural ninth grade students. The program is based on the hypothesis that students interacting for a short period of time with a counselor and a counselor aid will enhance their vocational development as measured by an increase in vocational maturity. Two samples of ninth grade rural students who are generally without full time counseling are to be used (one as a control group). The program is designed to help the student acquire experience in two basic areas: (1) knowledge of self and the world of work and (2) practice in utilizing this knowledge in prevocational decision making. The student will be exposed to career information, given aptitude and interest tests and interact with the counselor in individual and group sessions. The proposal is designed to involve parents. Also included are outlines for career exploration schedules, evaluation designs and cost estimates. (MC/Author)

PROPOSAL

for a

MOBILE ASSISTED CAREER EXPLORATION UNIT

to be conducted by

UTAH STATE UNIVERSITY

under the sponsorship of and in contract with

THE UTAH RESEARCH COORDINATING UNIT

and

VOCATIONAL AND TECHNICAL EDUCATION

UTAH STATE BOARD OF EDUCATION

TABLE OF CONTENTS

LIST OF TABLES

PROJECT M.A.C.E.

(MOBILE ASSISTED CAREER EXPLORATION)

I. INTRODUCTION AND STATEMENT OF PROBLEM

Project M.A.C.E. is a program designed to help youth in rural Utah effect a more efficacious vocational development pattern by providing them with additional experience in vocational counseling. It has been established that the need exists for additional impetus in this area by recent studies. With relation to the national scene Horner, et. al. (1967) believe that the type of employment an individual obtains is influenced by the motivation and direction provided by occupational aspirations, expectations, and interests of adolescence.

> These phenomena are crucial for the occupational attainment of rural youth, especially those who migrate into urban areas..... The importance attributed to the occupational orientation of youth as an explanatory variable for subsequent status attainment is evidenced by the extensive research literature on this subject and the increasing amount of attention being currently given to the study of these phenomena.

It appears evident that the motivation and direction mentioned above could be enhanced by a greater effort on the part of the public schools. Shill (1968), in his study of occupational interests, aspirations, and expectations of rural high school seniors in Mississippi states: "Most rural high schools fall short of the desired degree of influence they exert upon students who are engaged in the occupational choice process." Utah, is apparently in a similar situation. In a study conducted by Adams (1968) designed to ascertain the degree to which Utah high school students were being oriented to vocational and technical goals he found:

1. 27.3 percent of the students will not visit the counselor.
2. 31.6 percent only visited him once or twice during high school.
3. Less than half had tests interpreted for them.
4. Largest percent stated counselors had little or no influences on their post-high school education. There was little indication that counselors influenced students in the direction of vocational-technical post-high school training.
5. Over 60 per cent said the counselor did not help them identify their interests and abilities.
6. The majority said they received little or no occupational information in classes.
7. The majority expressed a need for help in choosing a career.
8. 87.5 percent said this was the counselor's role.

In the recently completed Project V.I.E.W., (1968) it was found that:

1. H.S. students do not use available vocational materials about Utah non-bacealaureate career opportunities. Upper middle class, white collar, value judgments are prominent. Others simply do not know the vast range of possible career opportunities.
2. Counselors are often unable to meet the needs of students because of lack of facilities, too many students, and inability to stay current in all areas of vocational education.

An earlier study by Mortimer (1965), showed that counselors have many duties which relate directly and properly to their work, but they also have many other duties which have little or no relationship to the counseling or guidance of students. In a survey of the counselors in this study, 85 percent of them thought greater emphasis should be placed on vocational guidance. Only 12.5 percent of the superintendents surveyed felt counselors were effective in helping students select a vocation.

A recent report (1968) by the Utah State Board of Education relating to the federally assisted programs emphasizes the perplexing status of counselors in the state:

> The efforts at development and upgrading of programs of guidance and counseling at the local level continue to work against the obstacles of an insufficient supply of counselors being prepared by the counselor education institutions of the State, the shift of a significant number of counselors into the field of administration and into other more lucrative positions outside the field of education, excessive pupil-counselor ratios and the seemingly endless struggle to achieve status and respectability for the profession in the educational family.

Recognizing that a problem does exist in helping students experience adequate vocational development leads to the question: "What kinds of experiences will help our students in this area and how might our local schools effect a program with this purpose?" Before seeking an answer to this question, a definition of vocational development might be in order. Tiedeman (1961) defines it as "...self development viewed in relation with choice, entry, and progress in educational and vocational pursuits."

With regard to the kinds of experiences that will enhance the student's vocational development, the writer would first turn to Super (1963) who says that vocational development in its simplest terms is the development and implementation of the student's concept of himself. If this is so, it would appear necessary that the student have an accurate picture of himself; i.e., his aptitudes, interests, values etc. Tiedeman (1961) sees the aim of vocational counseling as enhancing the operation of reason (which is related to accurate information about self) in the process of vocational development.

In addition to knowledge of self being an important part of vocational development, there is considerable evidence supporting the importance of student knowledge concerning the world of work. Sineck et. al. (1966), in reviewing research in this area found evidence to cause them to recommend expanding the knowledge and interests of all students at an early age in order to reduce unrealistic occupational identification. Wixom (1963) found that the study of careers by ninth grade students influenced them to explore fields of work more in line with their abilities. Devault (1963), found that individual counseling sessions and exposure to occupations through a vocational planning unit caused students to significantly improve in appropriateness of vocational choice as compared to those not receiving a similar experience. Super and Overstreet (1960), Norris (1963), and Hoppock (1963) report similar findings.

The above review of literature seems to at least partially answer the first part of the previously stated question concerning what kinds of experiences help a student's vocational development. The second part of that question concerning how our local schools might best effect such a program presents a different problem. It appears obvious that funds for additional counselors or teachers to implement a revitalized vocational development program is not imminent. It is the belief of the writer that the ideal program would begin in the early grades and continue throughout high school. Again, the monetary problem seems to preclude such a program. A beginning might be more feasible if the school districts involved pooled their resources in a shared vocational development program. The writer envisions such a program in Project M.A.C.E.

II. HYPOTHESIS

The proposed study is based on the hypothesis that students interacting for a short period of time with a counselor and counselor aid in a mobile counseling unit will increase their ability to understand the opportunities of the world of work as it relates to their aptitudes, interests, and values. Hence, their vocational development will be enhanced as measured by an increase in vocational maturity.

III. PURPOSE AND OBJECTIVES

As indicated above, the purpose of the proposed pilot project is to determine if a mobile guidance unit operating on a limited time schedule can provide a feasible means for increasing the vocational maturity of

ninth grade students in the rural school setting. Specifically, the objectives of MACE are that each student should:

1. Know and understand his developmental status. This includes knowing and understanding: (a) his personal abilities, interests, values, and other personal characteristics with respect to educational, vocational and social decisions; (b) that individual differences involve both inherited traits and learned behaviors resulting from interaction with the environment; (c) the changes in physical and psychological make-up of individuals concomitant with childhood, adolescence, maturity, and aging and the influence of these changes upon personal behavior patterns related to career decision making; (d) that by controlling his learning activities he can influence the development of his talents and behaviors.

2. Know and understand the conditions and the requirements of the many possible life alternatives in which he might participate. These alternatives include: (a) educational and learning opportunities (b) vocational opportunities (c) social and citizenship opportunities (d) leisure, cultural, and recreational opportunities.

3. Be able to plan to make decisions wisely. This includes: (a) solving problems using a rational way which includes among other things exploring for comprehensive information upon which to base his decisions; (b) evaluating the outcomes of plans and subsequent decisions; (c) making tentative plans that can be altered and making alternative plans that can be substituted in those situations requiring such flexible planning.

IV. METHODOLOGY

Sample

The sample population will come from rural communities in southern Utah which are generally without full-time counseling services. The focus will be on the ninth grade students in these communities. A tentative list of participating schools is enumerated in Appendix I. If these schools agree to participate, the experimental schools will total approximately 1,061 students.

In addition, approximately 100 students from rural schools of similar characteristics will participate as a control group along with a like number from a modern urban school district for evaluation purposes.

Program Outline

In attempting to choose a particular type of program, many avenues were investigated. Basically, the program has been envisioned as helping the student acquire experience in two basic areas: (1) knowledge of self and the world of work and, (2) practice in utilizing this knowledge in pre-vocational decision making. In attempting to discover the mediating forces which would provide students with these two basic types of experiences the writer visited with David Tiedeman, the Illinois State Department of Education, and communicated with other authorities in the field such as John Crites and Donald Super. Dr. Tiedeman is presently engaged in the development of a computerized information retrieval system for career decision making. While there are seven or eight such programs in the nation in the beginning stages of utilization, Dr. Tiedeman

is the only project designer to utilize the concept of decision via the computer. Because of the expense involved in such projects and their experiemental nature, it was not deemed appropriate for this study to utilize a computer system. Other information systems such as a telephone hook-up with the State Employment Service was not thought necessary if two VIEW machines could become installed in a mobile counseling unit.

The writer's visit to Illinois was to investigate a mobile counseling unit system utilized in the rural parts of that state. Their program was in its third year of operation and had received plaudits from state and local sources. It appeared to the writer that such a unit could have similar success in Utah. Other mobile units in this state have been well received in local districts and viewed as a "shot in the arm" by local administrators and teachers.

In reviewing the possible types of personnel and materials which the unit might contain, the writer investigated many sources of printed occupational information materials. As a result of this investigation it was decided that Chronicle's Occupational file plus several sources of unbound career materials be the main source for printed information. This decision was based largely on cost and methods of classification. A self-operated loop-tape device appeared to be a feasible source for projected career information of a general nature while the VIEW machine provided specific occupational information about jobs in Utah.

As has been quoted, common middle class values have caused students and parents to focus on college as the next step toward vocational development once the student leaves high school. For that reason plus

the college drop-out rate, employment needs in the state etc., the focus for this project will be on exposing students to post-high school opportunities outside the college preparation areas. However, this will not be to the exclusion of information about professional college oriented careers. The student will thus interact with the following materials in order to gain information concerning the world of work:

1. Chronicle Occupation File plus unbound career information materials.
2. Loop tape device for general occupational information.
3. VIEW
4. Post-high school technical institutions in Utah.
5. The apprentice-ship trades and on the job training opportunities.
6. Colleges and universities in Utah.

In order to gain knowledge about himself, the student will take the GATB and Kuder Preference Record to indicate areas of aptitude and interest. While there are other tests which could have been chosen in these areas, the GATB appears particularly relevant as it is related to occupations and the Kuder, while having limitations similar to all interest inventories is recognized by Boros as fairly adequate. In addition, students will have information concerning their achievement in school as it relates to vocational choice. The student will interact with the counselor in individual and group sessions in order to integrate his information about himself and the world of work. The details of this phase of the program follow. Another important aspect of a student's vocational program is the role the parents play. That parents may play

an important role in their child's vocational development has been established through the research of Norris (1963), Shill (1968), Caplow (1954), Miller and Form (1951), Hollingshead (1941), and Jensen and Kuchner (1955). Roe (1957), has long suggested that vocational interests expressed by students is based in early childhood experiences and relations to parents. Research relating to Roe's particular theory is mixed. It is proposed that Project MACE involve parents in the following ways:

1. Encourage parents to talk to their children about their own occupations.
2. Help parents see the role they should play in their child's career plans.
3. Help parents to encourage their children to read widely about occupations that interest them and to develop hobbies and join clubs to broaden their experience.
4. Parents can help their children investigate and explore new or less familiar occupations as well as the familiar occupations.
5. Explore with parents the importance of a desirable personality for job success and some of the factors affecting personality growth. (It is generally agreed that most people lose jobs not because they lack necessary skills but because they have difficulty getting along with their fellow workers.)

A program designed to encompass the above ideas would necessitate a team consisting of a counselor and a counselor aid. Generally speaking, the counselor will conduct group and individual counseling sessions with students, orientation programs with faculty, students, and parents; and, consultation sessions with parents. The counselor aid will administer

group tests where necessary, record student data and assist students in the use of career exploration materials.

Prior to the first visit all students will have taken the Kuder Preference Record and GATB instruments. The results will be placed on a student profile sheet along with a student's grade summary, achievement and intelligence test scores. It is proposed that the Project MACE counselor train a local faculty member to administer these instruments and that the local school secretary complete the student profile sheets. This might best be accomplished spring, 1969, in order that the information will be available at the start of the formal program, fall, 1969.

Basically the student experience will consist of:

1. An orientation to his participation in Project MACE for the purposes of motivation and cooperation.
2. Small group and individual sessions (where requested) with the counselor to help the student understand his Kuder and GATB scores.
3. Interaction with career information materials located in the mobile unit.
4. Small group and individual sessions (where requested) with the counselor concerning personal factors the student should consider in making tentative career decisions.
5. A pre and post series of evaluation tests to determine the effectiveness of the program.

The student experience with the counselor, counselor aid and the mobile unit will average 13-14 hours. In addition, time will be made

available for parent conferences with the counselor concerning the student's career goals.

The general total time factor formula for each participating school may be derived from information in Table 1. The time factor formulas are enumerated in Appendix II and the estimated time at the tentative experimental schools is listed in Appendix III.

Two visits are planned for each experimental school separated by approximately a two week interval. Student participation is coded in three separate ways in Table 1 to indicate individual (I), small group of 12 students (SG), and all students in one group (LG).

In order that the reader might obtain a clearer picture of the sequence and topic involvement as it would evolve in an actual school situation, a suggested sequence schedule for a student population of twenty-four is outlined in Table 2.

TABLE I

GENERAL SCHEDULE

TIME		TOPIC	HOURS	PARTICIPATING				
Visit	Day			Counselor	Aid	Student	Administration and/or Faculty	Parents
Pre	Visits	Testing, Kuder and GATB	2½			X(LG)	X	
1st	1	Physical Arrangements	1-3	X	X		X	
"	"	Pre-evaluation test session	2	X		X(LG)		
"	"	Student Orientation	1	X		X(LG)		
"	"	Test interpretation - GATB and Kuder	(1)*	X		X(SG)		
"	"	Faculty Orientation	1	X	X		X	
"	"	Parent Orientation	1.5	X	X		X	X
1st	2 to X	Individual Counseling reference-test interpretation	(½)*	X		X(I)		
"	"	Career Exploration	(3)*		X	X(SG)		
2nd	1 to X	Tentative Career Decisions	(1)*	X		X(SG)		
"	"	Career Exploration	(2)*		X	X(SG)		
"	"	Individual Counseling reference-tentative career decisions	(½)*	X		X(I)		
"	"	Parent Conferences	(1)*	X		X(I)		X
"	"	Post-evaluation test	2		X	X(LG)		

*The hours listed here represent either individual or small group hours whereas other hours listed represent the total time involvement for that topic. The total time required for the starred items depends on the number of students in a particular school.

TABLE 2

PROJECT MACE SCHEDULE FOR A
STUDENT POPULATION OF TWENTY-FOUR

1st Visit
1st Day

Time	Counselor	Counselor-Aid
1st period	Arrangements for faculty orientation Physical arrangements for trailer Room arrangements for orientation and testing Arrangements for parent orientation	Prepares trailer for Student Use Sets out occupational materials Prepares projectors Prepares handouts Picks up profile sheets Prepares list of students who haven't had testing (GATB & Kuder) Schedules Appts. for Testing Coordinates scheduling for student groups
2nd & 3rd periods	Pre-test evaluation 1. Test of Occupational Knowledge 2. Test of vocational attitudes 3. Test of wisdom of vocational choice	
4th period	Conducts student orientation	
	LUNCH	LUNCH
5th period	Test interpretation 1st group (GATB & Kuder)	Administers make up tests - GATB & Kuder
6th period	Test evaluation and interpretation 2nd group (GATB & Kuder)	Supervises Career exploration 1st group 1st hour
After school	Faculty orientation	Faculty orientation
Evening	Parent orientation	Parent Orientation Scheduling parent conferences

2nd Day

1st period	Individual counseling - 1st group Those desiring such services	Career exploration 2nd group 1st hour
2nd period	Individual counseling 2nd group	Career exploration 1st group 2nd hour
3rd period	Individual Counseling 1st group	Career exploration 2nd group 2nd hour

TABLE 2 (Cont.)

Time	Counselor	Counselor-Aid
4th period	Individual Counseling 2nd group	Career Exploration 1st group 3rd hour
	LUNCH	LUNCH
5th period	Individual Counseling 1st group	Career exploration 2nd group 3rd hour
6th period	Individual Counseling 2nd group Moves trailer to next location	Prepares trailer for moving Rearranges occupational files LOCKS cabinets general clean-up
	2nd Visit 1st Day	
1st period	Tentative Career Decision Group Process 1st group of 12	Coordinates scheduling with school for individual counseling and parent consultation.
2nd period	Tentative career decision 2nd group	Career exploration by 1st group of 12
3rd period	Individual counseling 1st group	Career exploration by 2nd group of 12
4th period	Individual Counseling 2nd group	Further supervision of individual student career exploration. Students will sign up for addi- tional use as desired.
	LUNCH	LUNCH

TABLE 2 (Cont.)

Time	Counselor	Counselor-Aid
5th period	Individual Counseling 1st group	Individual Career Exploration
6th period	Individual Counseling 2nd group	Individual Career Exploration
	2nd Visit **2nd Day**	
1st period	Individual Counseling Beginning of Parent conferences	Receptionist for visiting parents Final filing of student data Career exploration supervision
2nd period	Begin parent conferences	Same
3rd period	Parent conferences	Same
4th period	Parent conferences	Same
	LUNCH	LUNCH
5th & 6th Periods	Parent Conferences	Post evaluation tests Prepares trailer for moving to next location
	Drives trailer to next location	

The student career exploration experience is outlined below.

CAREER EXPLORATION 1st Hour

Objective: Acquaint students with the materials on the mobile van and orient them with the procedure used in career exploration.

Program: The Counselor Aid will conduct a guided tour of the mobile van and will give the students (12 in a group) a practical demonstration of the use and application of the available materials. The following areas will be located in the van.

AREA:

1 Chronicle Occupational File plus unbound career information materials

2 Loop tape device for general occupational information

3 VIEW

4 Post-high school technical institutions in Utah.

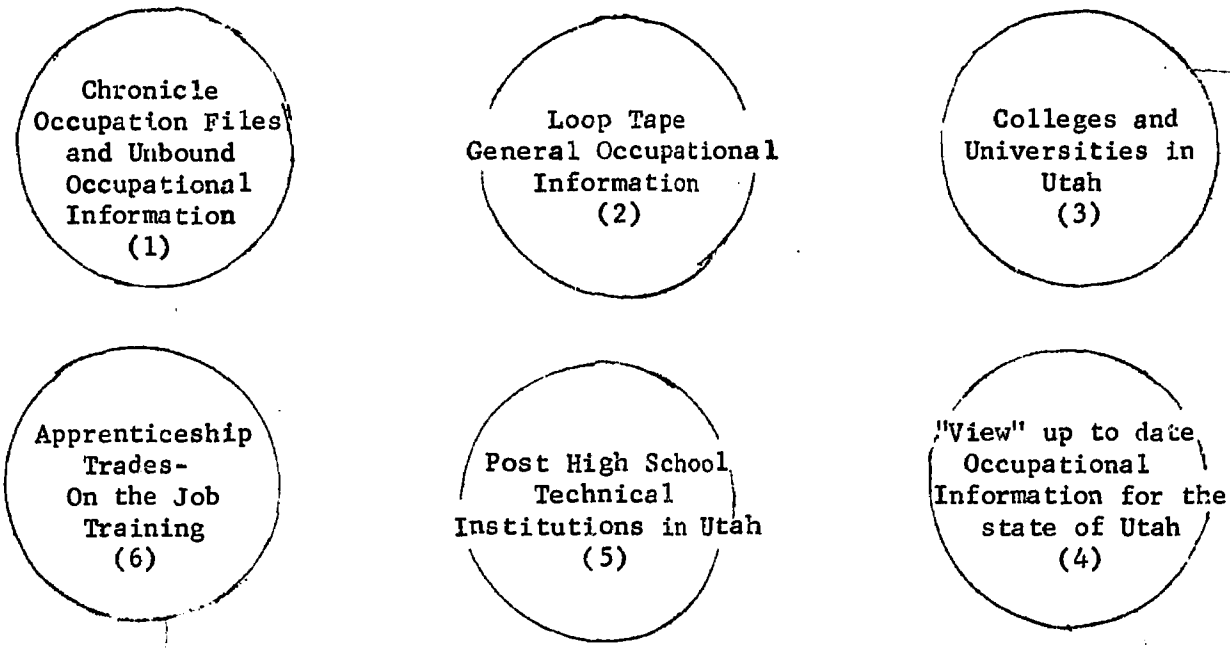
5 The apprentice-ship trades and on the job training opportunities.

6 Colleges and universities in Utah

CAREER EXPLORATION 2nd Hour

Objective: Practical experience with career exploration materials.

Program: The students will be given a worksheet upon which is listed 8 major occupations. Each student will choose one of the listed occupations and will be required to answer general and specific questions about it. The questions will be related to the work areas located in the mobile unit. For example, the areas a typical student would visit during this period include:



Following general instructions the students will begin at one of the six areas and will rotate in a uniform direction. Each station will be duplicated making a total of twelve stations, one per student. This is necessary in order to facilitate student interest and control. (See Appendix IV for a copy of the worksheet used during this hour.)

CAREER EXPLORATION 3rd Hour

Objective: To allow each student the opportunity to explore occupations in which he is interested.

Program: The students will be given a worksheet upon which they will list two occupations in which they are interested. The remainder of the period will be spent moving from one area to another answering general and specific questions pertaining to the occupations they have listed. The same sequence and questions will be followed as during the 2nd hour.

CAREER EXPLORATION 4th Hour

Objective: Prior to this hour, the students will be involved in a tentative career decision group counseling session. During this session the counselor will discuss student tentative choices as related to personal characteristics and let students explore their choices. The students will then utilize the career materials to finalize their tentative choices. This will be accomplished by the student responding to a questionnaire. (See Appendix V for a copy of the questionnaire.

Program: This 4th hour exploration period will be basically unstructured in nature. Under the guidance of the counselor aid, each student will have the opportunity of matching his or her profile sheet with the tentative occupational choices they have made. The facilities of the mobile unit will be available for any rechecking the students might wish to accomplish. This period follows the group counseling process "Tentative Career Decision" during which time the students will have discussed many of the variables involved in making career choices. It is desired that the students will be applying the knowledge and insight they have gained during the group counseling in their career exploration and self evaluation.

CAREER EXPLORATION 5th Hour (Not mandatory)

Objective: To provide interested students additional time for unstructured career exploration.

Program: Any student desiring additional time for Career Exploration will be permitted to sign up for an extra hour or period. This time will be under the supervision of the Counselor Aid whose function will be to provide help if needed.

Mobile Unit

The mobile unit is the key to the MACE program. It provides "counseling on wheels" and therefore it is important that the design of the unit is functional, facilitating all of the activities in Project MACE except large group testing and general student, faculty, and parent orientation. The unit is basically divided into a large area for small student group career exploration with the available materials under the supervision of the counselor aid and a small area for the student-counselor sessions. Diagrams of the unit are included in Appendix VI.

Data

Basically two types of data will be gathered. Subjective data concerning the value of the program will be gathered via a questionnaire given to students, faculty, and parents of the experimental group. Objective data concerning the relative position of experimental and control group students with regard to their vocational maturity will be gathered in a pre and post test. In addition, it will be possible to gather follow-up data up to five years after the student graduates from high school.

Evaluation Design

In order to test the feasibility of the MACE approach to student vocational development it is important to gather data relative to the overall purpose; i.e., increased vocational maturity of the student. Vocational maturity is used in this reference as defined by Crites (1961):

> refers to the maturity of an individual's vocational behavior as indicated by the similarity between his behavior and that of the oldest individuals in his life stage.

Crites states:

> .....it seems reasonable to predict that relatively mature vocational choice attitudes may mediate not only consistent and wise (realistic)vocational choices but also the vocational choice competencies which facilitate mature decision making. Finally, the dimensions are comprised of various specific variables which reflect the same pattern of relationship.

Each of the four facets of vocational maturity listed in Table 3 will be assessed in a pre and post test for the experimental and control groups. This data will be treated to elicit two types of information:

1. Significant difference between pre and post respectively for experimental and control groups.
2. Significant difference between pre and post differences comparing experimental with the control groups.

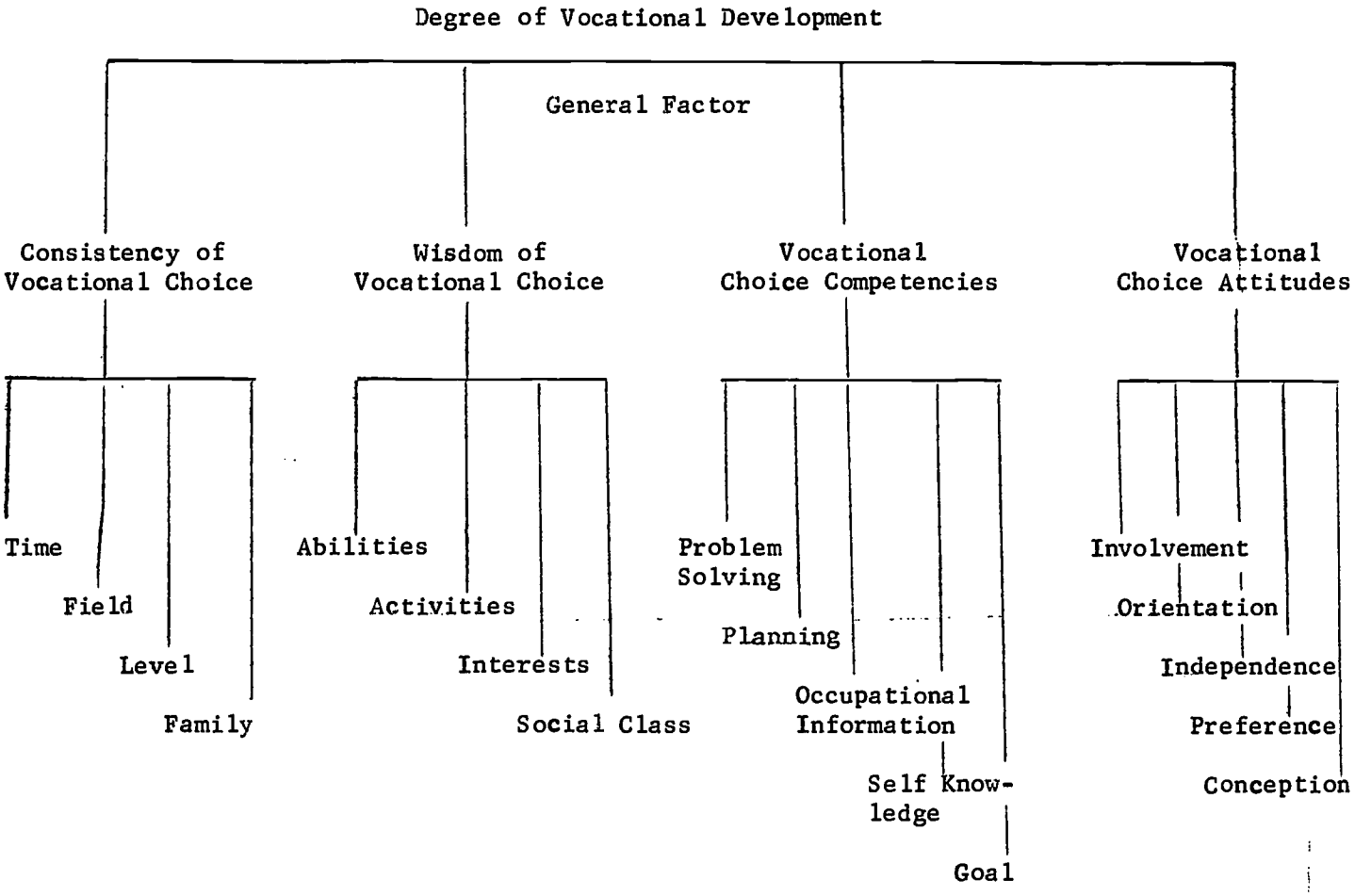
Consistency of vocational choice is defined as stability of vocational choices over time, and agreement among vocational choices in field, level, and family. Wisdom of vocational choice is defined as extent to which vocational choice agrees with abilities, activities, interests, and socioeconomic background. Vocational choice competency is defined as involving such mental processes as assimilating information about self and reality, resolving conflicts between alternative courses of action, establishing future goals and relating means to ends through planning. In contrast, choice attitudes are more conative in nature and

refer to involvement in the choice process, orientation toward work, independence in decision making, preference for choice factors, and conceptions of the choice processes.

While the above method of evaluation attempts to elicit objectively the student's growth in vocational maturity as a result of MACE, the second evaluation method will attempt to elicit subjective opinions from students, faculty, and parents as to the worth of MACE. A frequency tally will be made concerning each queried area for the total experimental group with results reported in percentage form. In addition it may be valuable to compare experimental schools with already existing counseling services to experimental schools without counseling services.

TABLE 3

The Construct of Vocational Maturity as Derived from Theories of Vocational Development



Cost Estimates

1. Trailer	
Shell	$ 3,750.00
Built in equipment	1,000.00
Operation and Maintenance (@ 14¢/mi)	254.00
2. Career Information Materials	
Chronicle Occupational Library	172.20
Films (Purchase and Rental)	200.00
Super 8 Loop film projector	600.00
VIEW Materials	NC
Pamphlets and Books	50.00
3. Testing Materials	
Kuder	
Manuals (50 @ $11/20)	27.50
Answer sheets (1200 @ 8¢ each)	96.00
Profile sheets (1200 @ 70¢/20)	42.00
VDI	
Answer sheet-scoring (600 @ 15¢)	90.00
G.A.T.B.	
Scoring (27¢ per person)	286.47
Key punch cards (7¢ each)	74.27
Test Manuals: 1 ($15.00/100)	34.00
2 ($12.00/100)	27.00
8 ($ 2.75/100)	30.25
Administering and scoring book (45¢ per copy)	8.10
Norms: O.A.P. (70¢ per copy)	1.40

Norms: Specific occupations ($1.50 per copy)		3.00
Answer sheets ($30.00/1000)		33.00
4. Personnel		
Counselor		$10,000.00
Counselor Aid		4,000.00
	T O T A L	$20,779.19

The cost factors of the school districts and the State Department break down as follows:

1. School District:		
Testing materials		$ 752.99
Personnel		$14,000.00
	TOTAL	$14,752.99
Cost per student		$ 13.90
2. State Department		
Trailer		$ 5,004.00
Career Information		1,022.20
	TOTAL	$ 6,026.20
Cost per student		$ 5.67
3. TOTAL COST FACTOR		$20,779.19
Cost per student		$ 19.58

APPENDIX I

TENTATIVE LIST OF PARTICIPATING EXPERIMENTAL SCHOOLS

NAME OF SCHOOL	COMMUNITY
Enterprise High School	Enterprise
Woodward Junior High	St. George
Hurricane High School	Hurricane
Valley High School	Orderville
Bryce Valley High School	Tropic
Panquitch High School	Panquitch
Cedar City Junior High	Cedar City
Parawan High School	Parawan
Milford High School	Milford
Beaver High School	Beaver
Gunnison Valley High School	Gunnison
North Sevier High School	Salina
Richfield Junior High	Richfield
S. Sevier High School	Monroe
Piute High School	Junction

APPENDIX II

TOTAL TIME FACTOR FORMULAS FOR FIRST AND SECOND VISITS

FIRST VISIT

$$a + \left[\frac{\left(\frac{e}{2} \times C\right) + \left(\frac{e}{d} \times b\right) + \left(\frac{e}{d} \times f\right)}{G}\right] = \text{Total time per school 1st visit}$$

Where a = 6.5 hours physical arrangements for trailer and orientation
gathering student profile sheets
pre evaluation tests
student orientation
faculty orientation
parent orientation

b = 1 hr (student groups of 12 - GATB and Kuder discussion)

C = .5 hr (individual counseling for 1/2 students)

d = 12 (number of students per group)

e = total number of participating students

f = 3 hrs (student career exploration, groups of 12)

G = 2 (programs which run concurrently - counselor and counselor aid)

SECOND VISIT

$$a + \left[\frac{\left(\frac{e}{4} \times C\right) + \left(\frac{e}{f} \times b\right) + \left(\frac{e}{f} \times d\right)}{2}\right] + \left(\frac{G}{H} \times i\right)$$

Where a = 2 hr (constant) Post evaluation test

b = 1 hr (group session tentative career decision)

C = .5 hr (Individual counseling for those desiring such service (figure app. 1/4 of students will request such service)

d = 2 hrs (each student for career exploration)

e = Number of participating students

f = 12 (number of students per group)

G = Number of parents (figure one parent for each participating student)

H = .25 (Approximate number of parents who will want consultation)

i = 1 hour (time for parent conference)

APPENDIX III

TENTATIVE SCHOOL VISITATION TIME SCHEDULE AND SEQUENCE

TOWN	NUMBER OF PARTICIPATING STUDENTS	# OF GROUPS OF 12	ESTIMATED LENGTH OF VISIT 1st Visit	2nd Visit
Enterprise	20	2	2½ days	2 days
St. George	185	15	10 days	13 days
Hurricane	75	6	4½ "	5½ "
Orderville	24	2	2½ "	2 "
Tropic	24	2	2½ "	2 "
Panquitch	36	3	3 "	3 "
Cedar City	208	17	11½ "	15 "
Parawan	46	4	3½ "	4 "
Mulford	32	3	3 "	3 "
Beaver	54	5	4 "	5 "
Gunnison	61	5	4 "	5 "
Salina	58	5	4 "	5 "
Richfield	145	12	8½ "	10½ "
Monroe	56	5	4 "	5 "
Junction	37	3	3 "	3 "
	1061 students		70½ days	83 days

153½ days

APPENDIX IV

WORKSHEET FOR CAREER EXPLORATION
SECOND HOUR

Choose one of the listed occupations and answer the following question about it. The answers will be found at the different areas you will visit as designated.

1. Electronic Technician
2. Nurse
3. Secretary
4. Teacher
5. Doctor
6. Automobile Mechanic
7. Carpenter
8. Engineer

Questions to be answered in Area 1:

1. What are the different kinds of work open to students who have specialized in this area?

2. Does the job require college training? If so, how much?

3. Would you work mostly indoors or outdoors?

4. What would your yearly income be at the beginning of your career?

5. Does the occupation require licensing or certification of some sort?

Questions to be answered in Area 2:

1. Would you work alone or with others?

2. What would your yearly income be at the beginning of your career?

3. How many hours a week would you work in this job? Would you also work nights?

Questions to be answered in Area 3:

1. List a few colleges or training institutions outside of Utah which offer training in the occupational area.

2. Do you need a bachelor's degree? Will an advanced degree be an asset to your career?

3. How much will it cost to attend a year of school?

4. Are there special scholarships for students who wish to study for this career?

Questions to be answered in Area 4:

1. Does the job involve a lot of thinking and planning?

2. What are the approximate number of workers in the field currently?

3. What is the outlook for this type of work in the state of Utah?

Questions to be answered in Area 5:

1. Are training institutions available in the state of Utah? List several of them.

2. What is the major course of study you would pursue?

3. Do you need a bachelor's degree? Will an advanced degree be an asset to your career?

4. How much will it cost to attend a year of school?

5. Are there special scholarships for students who wish to study for this career?

Questions to be answered in Area 6:

1. Do you need to be able to work well with your hands? (Good manual dexterity)

2. What would your yearly income be at the beginning of your career?

3. Does the occupation require licensing or certification of some sort?

4. What are some of the disadvantages with this job? (Such as health hazards, poor hours, disappointment, repetative tedious work, etc.)

5. Will there still be plenty of jobs in this field when you are ready to go to work, or is it a job that is becoming obsolete because of automation or other factors.

APPENDIX V

TENTATIVE CAREER CHOICE QUESTIONNAIRE

I. Career Exploration Questions

A. List two occupations in which you are interested.

1.
2.

B. As you move through the various stations in the mobile van, use the available materials to answer the following questions concerning your two occupational choices.

1. What are the principle duties in which you would be involved?

Choice 1.

Choice 2.

2. Are opportunities available for advancement and what must you do to qualify?

Choice 1.

Choice 2.

3. How many people are employed nationally in these professions?

Choice 1.

Choice 2.

4. How many people are employed locally in these professions?

Choice 1.

Choice 2.

5. What is the outlook nationally for future employment in these professions?

Choice 1.

Choice 2.

6. What is the outlook locally for future employment in these professions?

Choice 1.

Choice 2.

7. What would your earnings be?

   Choice 1.

   Choice 2.

8. What would your hours be?

   Choice 1.

   Choice 2.

9. Check the boxes of the following chart that apply to your choices?

	College	High School	Trade School	Indoor	Outdoor	Mental Skills	Office Skills	Manual Skills
Choice 1								
Choice 2								

10. What are some of the special abilities you need to possess? (Such as academic, mechanical, artistic, etc.)

11. Do your choices or one of your choices require college education? If so do the colleges in your area have the necessary programs? List the colleges and universities which have the program and the tuition costs for one year.

    Choice 1.

    Choice 2.

    List one college outside of Utah which also has the program and give the tuition and expenses for one year.

    Choice 1.

    Choice 2.

12. Do your choices (or one of your choices) require a trade or technical education? Are such schools available in the state? List them and the cost of attending for one year.

    Choice 1.

    Choice 2.

13. Are there scholarships or loans available for students who wish to study for this career?

    Choice 1.

    Choice 2.

14. Is special licensing or certification required? What about joining a union or association?

    Choice 1.

    Choice 2.

15. What are some of the disadvantages connected with this job?

    Choice 1.

    Choice 2.

16. Will there still be plenty of jobs in these fields when you are ready to go to work, or are they jobs that are becoming obsolete because of automation or other factors?

    Choice 1.

    Choice 2.

II. Comparison with Student Profile Sheet

A. By utilizing your student profile sheets in conjunction with the occupational information you possess answer the following questions:

1. List the aptitudes in which you scored highest on the G.A.T.B. List the aptitudes which your occupational choices require. Compare the three lists. Do your aptitudes match those which the job requires?

Choice 1	Choice 2	G.A.T.B.

2. List the occupational areas in which your interests and preferences most closely matched those of people in the profession (Kuder). Do your occupational choices fall into these same areas?

Kuder	Choice 1
	Choice 2

3. Using the above information rate yourself on the following scale. Circle the number which best describes your occupational choices in relation to your aptitudes and interests.

1.	2.	3.	4.	5.
In most areas my choices match my interests and aptitudes	One of my choices matches my aptitudes and interests	In some areas both my choices match my aptitudes and interests.	In some areas one of my choices matches my aptitudes and interests.	None of my choices matches my aptitudes or interests.

4. List some of the reasons why you feel that you did or did not make good occupational choices.

APPENDIX VI

MOBILE UNIT DIAGRAMS

BIBLIOGRAPHY

Adams, Spencer D. "The Degree to Which Utah High School Students are Being Oriented as to Vocational and Technical Goals." A Masters Study, Brigham Young University in cooperation with the Coordinating Unit for Research in Vocational and Technical Education. May, 1968, pp. 93-96.

Caplow, T. The Sociology of Work. Minneapolis: University of Minnesota Press, 1954.

Crites, John O. "Measurement of Vocational Maturity in Adolescence: Attitude Test of the Vocational Development Inventory." Psychol. Monographs, 1965, 79(2), p. 5.

Hollingshead, A.B. Elmtown's Youth. New York: Wiley, 1941.

Hoppock, R. Occupational Information. New York: McGraw Hill, 1963, p. 362.

Horner, J.T., Britenbaugh, J.G., and Carefoot, J.J. Factors Relating to Occupational and Educational Decision-Making of Rural Youth. University of Nebraska Agricultural Experiment Station, 1967.

Jenson, P.G., and Kirchner, W.K. "A National Answer to the Question, Do Sons Follow Their Father's Occupations?" J. Appl. Psychol., 1955, 39, 419-421.

Miller, D.C., and Form, W.H. Industrial Sociology. New York: Harper, 1951.

Mortimer, William E. "Programs of Guidance and Counseling As They Relate to Young People and Their Preparation for Work," Department of Industrial and Technical Education, Engineering Experiment Station, Utah State University, Logan, Utah, 1965.

Norris, Willa. Occupational Information in the Elementary School. Chicago: Science Research Associates, 1963, p. 23.

Roe, Anne. "Early Determinants of Vocational Choices," J. Counsel. Psychol., 1957, 4, 212-217.

Shill, James F. "Careers of Rural Male High School Seniors in Mississippi: A Study of Occupational Interests, Aspirations, and Expectations," Research Coordinating Unit for Vocational-Technical Education, Social Science Research Center, Mississippi State U., 1968.

Sinick, Daniel, Gorman, William and Hoppock, Robert. "Research On The Teaching of Occupations - 1963-64," Personnel Guid. J., 1966, 44, 591-595.

Super, Donald E. and Overstreet, Phoebe. The Vocational Maturity of Ninth Grade Boys. New York: Teachers College, Columbia University, 1960, p. 153.

Tiedeman, David V. "Decision and Vocational Development: A Paradigm And Its Implications," Personnel Guid. J., 1961, 40, 15-21.

U.S. Department of Health, Education, and Welfare. A Study of the Effectiveness and Efficiency of a Needlesort Aperture Card System to Dessiminate Occupational Information, 1968.

Utah State Board of Education, Annual Report of Federal Assistance Program, National Defense Education Act of 1958, Title V, Part A, 1968.

Wixom, "Teaching Occupational Information," Unpublished Masters Thesis, Northern Illinois University, 1963.